

AMENDMENTS TO SPECIFICATION

Amend the paragraph at page 4, lines 12-16, as follows.

The reaction of the compound II with the compound III is preferably carried out in a solvent or diluent. Suitable for this purpose are water, diethyl ether, tetrahydrofuran, acetonitrile, ester of ethyl acetate, dichloromethane or toluene.

Amend the paragraph at page 15, line 36 to page 16, line 7 as follows.

Suitable spectroscopic methods for the abovementioned methods 1, 2 and 3 are mass spectroscopy or UV-VIS spectroscopy, LC/UV-VIS (liquid chromatography/UV-VIS spectroscopy) or UV-VIS spectroscopy. Particularly suitable for each of the variants 1b), id), ~~i e)~~, 1 e), 2 d) and 3 c) are mass spectroscopy such as LC/MS or HPLC/MS or various LC- or HPLC-based methods in conjunction with conductivity measurements, NMR measurements or refractive index measurements, since it makes possible the simultaneous determination of different substances.

Amend the paragraph at page 16, line 35, to page 17, line 2, as follows.

In addition, all of the enzyme inhibitors identified in the abovementioned ~~method~~ methods can be tested for their herbicidal activity in an in-vivo activity test. Here, the substance in question is applied to the harmful plant in question in order to test the herbicidal activity.

Amend the paragraph at page 19, lines 1-18, as follows.

The selected compounds can be used for controlling undesired vegetation and, under certain circumstances, also for the defoliation, for example of potatoes, or for the desiccation of, for

example, cotton. Moreover, the selected compounds may, if appropriate, also be used for regulating the growth of plants since inhibitors of the biosynthesis of the plant hormone ~~auxins~~ auxin may have an effect on the growth of the plants. Agrochemical compositions which comprise the selected compounds effect very good control of vegetation on non-crop areas, especially at high application rates. In crops such as wheat, rice, maize, soya and cotton, they act against broad-leaved weeds and grass weeds without inflicting any major damage on the crop plants. This effect is especially observed at low application rates. The selected compounds can be used for controlling the harmful plants which have already been mentioned above.

Amend the paragraph at page 24, line 23, to page 25, line 4, as follows.

All of the following steps are carried out at 4°C. 100 g of freshly harvested plant material is homogenized in a mixer at 4°C with 100 ml of extraction buffer (50mM KH₂PO₄, pH 8.5; 0.5mM EDTA; 0.5mM MnCl₂; 10 mM isoascorbate) in 2 steps at 1 minute each. Thereafter, 5 g of polyvinylpolypyrrolidone are added (ratio plant material/PVPP 100:5), the mixture is stirred for 5 minutes and then filtered through 8 layers of gauze. After centrifugation of the filtrate (20 000 g, 4°C. 20 min; SL-250 T rotor – Sorvall Super T 1 centrifuge), the supernatant is subjected to a fractional precipitation with ammonium sulfate (60%, 80%). The supernatant which remains is discarded, the pellet is resuspended with 3 ml of column buffer (10 mM Tris-HCl, pH 8.0; 0.1 M NaCl), the suspension is brought to a total volume of 5.0 ml and the mixture is desalted using an equilibrated PD 10 column (Amersham Pharmacia). Depending on the use, the desalted enzyme solution is either frozen at -20°C in portions or, if required, can be employed directly in the enzyme assay.

Amend the paragraph at page 28, line 8, to page 29, line 11, as follows.

To obtain the enzyme extract, 2 g of frozen plant shoots of *Chenopodium album* (common lambsquarters), which had been comminuted in a pestle and mortar under liquid nitrogen, were defrosted at room temperature in 3 ml of 100 mM EPPS extraction buffer (5 mM dithiothreitol, 6 μ M pyridoxal phosphate, 10 μ M leupeptin, 10 μ M Pefabloc SC, pH 8.5) together with a spatula-tipfull of polyvinyl pyrrolidone in the course of 30 minutes with gentle stirring. Thereafter, the plant material was centrifuged for 10 minutes at 4°C and the supernatant was desalinified on a Sephadex G-25 column (preequilibrated with 5 mM EPPS elution buffer (1 mM dithiothreitol, 6 μ M pyridoxal phosphate, 10 μ M Pefabloc SC, pH 8.5). The resulting enzyme extract (400 μ l) was incubated in the test assay (volume 600 μ l) for 2 hours at 37°C in the presence of 20 μ M pyridoxal phosphate, 80 mM EPPS extraction buffer, 50 μ M L-tryptophan, 50 μ M α -ketoglutarate and 50 μ M indole with addition of 100 μ l of EPPS extraction buffer and 6 μ l of active ingredient solution (10 mM compound I in DMSO). The control without compound I was treated with the corresponding amount of DMSO. The reaction was subsequently stopped by addition of 20 μ l 7.2N HCl and 3 ml of ethyl acetate. The control assays without incubation were placed on ice and immediately treated with HCl and ethyl acetate. After reextraction with 3 ml of ethyl acetate, the organic phases (6ml) are combined and concentrated under a nitrogen stream, and the samples are methylated with diazomethane. The indole-3-acetic acid which is present in the sample material was thus converted in to methyl indole-3-acetate (IEA-Me). Thereafter, the amount of IEA-Me was determined immunoanalytically by means of monoclonal antibodies (100% reactivity to IEA-Me); (method of Weiler E.W., Eberle J., Mertens R., Atzorn R., Feyerabend M., Jourdan P.S., Arnscheidt A., Wieczorek U., in: Immunology in Plant Science

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(Wang T.L., Ed.), Society for Experimental Biology, Seminar Series 29, Cambridge University Press, Cambridge, 1986, pp. 27-58) and used as measurement for the enzyme activities.

Inhibition of the indole-3-acetic acid (IEA) synthesis reaction by ~~compound I~~ compound I is shown in Table 2.